

REMARKS

Claims 18-23, 26-30, 36-40 and 42-55 remain in this application, with Claims 18, 20, 26 and 39 amended and new Claims 44-55 added. Applicants respectfully request reconsideration and review of the application in light of the foregoing amendments and following remarks.

As an initial matter, Applicants acknowledge with appreciation the courtesy of the Examiner in conducting the telephonic interview on January 24, 2007. This amendment reflects the discussion during that interview.

The Examiner rejected Claims 18-23, 26-30, 36-40 and 42-43 under the judicially-created doctrine of obviousness-type double patenting over Claims 1-8 of U.S. Patent No. 6,327,812. Applicants previously submitted a terminal disclaimer in compliance with 37 C.F.R. § 1.321(c), which was deemed sufficient to obviate this ground of rejection. The Examiner acknowledged receipt of the terminal disclaimer. Applicants request confirmation by the Examiner that this ground of rejection is now overcome.

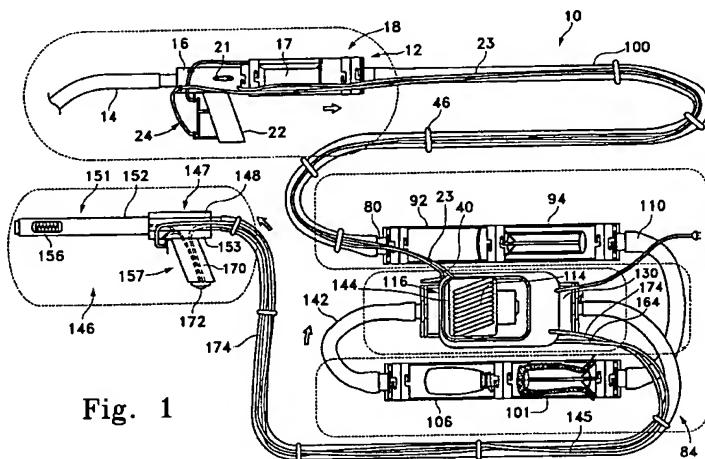
The Examiner rejected Claims 18, 20-21, 23, 26-29, 36, 40 and 42-43 under 35 U.S.C. § 103(a) as unpatentable over Forbes in view of Brenner et al. This rejection is respectfully traversed.

As discussed previously, Forbes discloses killing termites and other insects by insulating a structure, and heating the air inside to an elevated temperature as necessary to heat the wood of the structure to around 120° F, thereby killing the termites. As acknowledged by the Examiner, Forbes fails to disclose or to suggest the extraction of dead organisms from the treated structure, and would simply leave the dead organisms (i.e., termites) in place. More to the point, Forbes fails to disclose or suggest the step of filtering the heated interior air or other gas to remove the suspended particulates that remain within the structure. In fact, Forbes does not disclose any type of filtration, much less filtration of remove microscopic particles.

To make up for this deficiency, the Examiner now proposes the combination with Brenner et al., which discloses a vacuum device to enhance environmental quality.

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More specifically, Brenner et al. discloses a vacuum device having a hand held intake unit 12 and a heater/air exhaust unit 146 that are in communication with a central filter 84 and housing unit 144. The operator uses the heater/air exhaust unit 146 to project heated air in order to force pests from their harborage. See col. 11, ln. 63, through col. 12, ln. 9. Then, the operator uses the intake unit 12 to catch the pests, dust, debris and other objects in the vacuum created by motor 114. See col. 12, Ins. 37-49. The filter unit 84 includes a HEPA filter and is arranged to filter the air that passes from the intake unit 12 to the heater/air exhaust unit 146. See Fig. 1 below.



As an initial matter, the Examiner has not met the rigorous legal standards for demonstrating a motivation or teaching to combine the references as proposed. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." *In re Kotzab*, 217 F.3d 1365, 1370 (Fed. Cir. 2000); *In re Lee*, 277 F.3d 1338, 1342-44 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation

to combine references); *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347 (Fed. Cir. 1992). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990).

A statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See also *In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000) (Court reversed obviousness rejection involving technologically simple concept because there was no finding as to the principle or specific understanding within the knowledge of a skilled artisan that would have motivated the skilled artisan to make the claimed invention); *AI-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308 (Fed. Cir. 1999) (the level of skill in the art cannot be relied upon to provide the suggestion to combine references.).

In this case, Brenner et al. does not disclose the eradication of pests using heat. To the contrary, Brenner et al. uses heat merely to cause the pests to vacate their harborages to permit subsequent collection using the vacuum intake unit. Putting aside the question of the efficacy of the Brenner et al. process, it is clear that Brenner et al. is not directed to the same problem faced by the present patent application. Since, the pests are not eradicated using a heat process, Brenner et al. does not use filtration to remove the suspended particulate matter remaining from the heat eradication process. Indeed, the filtration system in Brenner et al. is upstream from the heater/air exhaust unit 146, i.e., **Brenner et al. is filtering the air before heating it rather than filtering the air after applying the heat.** Since Brenner et al. is not directed to the same problem as the present invention, and the references contain no express teaching or suggestion for the combination, then the proposed combination is improper. The Examiner has provided no evidence of any such teaching or suggestion.

To further distinguish the combination of references, Applicants have amended independent Claim 18 to recited the following steps:

applying a pressure differential to said enclosure relative to atmospheric pressure to draw said heated gas out of said enclosure;

filtering said heated gas to remove from said enclosure any fine particulate remains from said organisms that are suspended in the heated gas; and

exhausting said filtered heated gas from said enclosure to an external environment such that the particulate remains are substantially removed from said heated gas before its exhaustion.

Independent Claims 20 and 26 are amended in a generally similar manner. As discussed above, Brenner et al. is a handheld device that has no capability of exhausting heated gas from within an enclosure. Forbes discloses a closed loop system in which hot air is recirculated through the structure. See col. 2, Ins. 48-53. Unlike the invention, Forbes fails to disclose the desirability of filtering the heated gas before exhausting the gas into the outside environment. As shown in Figure 1 of Forbes, the heated gas is simply vented to the environment without filtering. In contrast, the invention provides for the effective removal of the particulate remains of the killed organisms from the enclosure **as well as** the protection of the outside environment from the allergenic effects of these particulate remains.

Even if there was an adequate showing of motivation to combine the references as proposed, which Applicants do not concede for the reasons set forth above, the proposed combination of references fails to disclose all limitations of the claims. To establish *prima facie* obviousness of a claimed invention, **all** the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981 (CCPA 1974); *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970) ("All words in a claim must be considered in judging the patentability of that claim against the prior art.") If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

As discussed above, Forbes fails to disclose or suggest the step of filtering the heated interior air or other gas to remove the suspended particulates that remain within the structure. Brenner et al. fails to make up for this deficiency because it discloses filtering of the air **before** heating it rather than filtering the air **after** applying the heat. Even if the references were combined as proposed, the combination would not disclose all limitations of the claims since neither reference discloses of filtration of the heated air to remove suspended particulates that are the byproduct of the heat eradication process. To further emphasize this distinction, Applicants have amended Claim 18 to clarify that the organisms are killed as a result of the heated air directing step, and the filtering step serves to remove particulate remains of the killed organisms. Accordingly, this ground of rejection should be withdrawn.

The Examiner also rejected Claims 18, 20, 21, 23, 26-29, 36-40 and 42-43 under 35 U.S.C. § 103(a) as unpatentable over Forbes in view of Montellano. This is the same ground of rejection as stated previously. Applicants have previously provided substantial argument and evidence rebutting this ground of rejection, and the Examiner does not provide any substantive response or other reasoning for maintaining the rejection.

Specifically, Applicants previously submitted the Declaration of Dr. Sean Abbott and the Declaration of Larry Chase. The declarations presented compelling objective evidence to show that the proposed combination would not have been obvious to one of ordinary skill, demonstrating, among other things: long-felt but unmet need, commercial success, and recognition of others. The evidence addressed the following issues:

- a. *Long-felt but Unmet Need:* Dr. Abbott attests to the fact that traditional methods to treat buildings contaminated by mold, bacteria, termites, dust mites, and other microorganisms are insufficient and may actually create a corresponding problem of increased bioaerosol particulate matter. (Abbott, ¶ 4.) In his declaration, Dr. Abbott refers to a publication in the Journal of Aerosol Science reporting that homes reclaimed from flood damage had significantly increased airborne microorganism levels. (Abbott, ¶ 8.) He also refers to a peer-

reviewed publication in the Atmospheric Environment that specifically discusses the health implications of inhaling indoor aerosols. (Abbott, ¶ 14.) Neither reference suggests the desirability of filtration in conjunction with eradication using heated gas.

b. *Commercial Success:* Mr. Chase attests to the commercial success of the invention. (Chase, ¶ 2, 4-10.) This success has a nexus to the claims of issue, because the claimed combination of thermal eradication and micro-filtration, is widely adopted under the commercial name ThermaPureHeat™.

c. *Recognition by Others:* Mr. Chase attests to the recognition by others the invention has received. (Chase, ¶ 2, 4, 11-12.)¹

When an applicant submits evidence traversing a rejection, the Examiner must reconsider the patentability of the claimed invention. MPEP § 716.01(d). The ultimate determination of patentability must be based on consideration of the entire record, by a preponderance of evidence, with due consideration to the persuasiveness of any arguments and any secondary evidence. *In re Oetiker*, 977 F.2d 1443 (Fed. Cir. 1992).

The Examiner has not met this standard. Specifically, the Examiner has not addressed any of Applicants' evidence showing objective indicia of non-obviousness. Moreover, the Examiner has not offered any contradictory evidence, nor has the Examiner shown that any of Applicants' evidence is unreliable or unpersuasive. Lastly, the Examiner has not demonstrated that the *prima facie* case of obviousness is so strong that the evidentiary showing does not rise to a level necessary to rebut the *prima facie* case. To the contrary, the Examiner has consistently presented a weak showing of obviousness, bolstered merely by the Examiner's unsubstantiated view as to what

¹ The Chase declaration further states that the process set forth in the claims has been named "Best New Product" by the National Society of Professional Engineers. (Chase, ¶ 4.) Upon further reflection, applicant considers this assertion inaccurate because the filtration process was not being used commercially at the time of the "Best New Product" award. The award was actually granted for a thermal remediation process that did not include filtration. All other statements contained in the Chase declaration are considered accurate.

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would be obvious to persons having ordinary skill in the art. In summary, the Examiner has failed to make a *prima facie* showing of obviousness, has failed to attribute proper weight to the evidence of record, and has failed to rebut the evidence or demonstrate why it does not overcome the Examiner's initial showing. For each of these reasons, this ground of rejection should be withdrawn.

In view of the foregoing, the Applicants respectfully submit that Claims 18-23, 26-30, 36-40, and 42-55 are in condition for allowance. Reconsideration and withdrawal of the rejections is respectfully requested, and a timely Notice of Allowability is solicited. If it would be helpful to placing this application in condition for allowance, the Applicants encourage the Examiner to contact the undersigned counsel and conduct a telephonic interview.

To the extent necessary, Applicants petition the Commissioner for a two-month extension of time, extending to February 28, 2007, the period for response to the Office Action dated September 29, 2006. The Commissioner is authorized to charge \$225. for the two-month extension of time pursuant to 37 CFR §1.17(a)(2) and any shortage in the fees, including extension of time fees, to Deposit Account No. 50-0639.

Respectfully submitted,



Date: February 28, 2007

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